HEADQUARTERS THIRTIETH SPACE WING
VANDENBERG AIR FORCE BASE, CALIFORNIA

EXPLOSIVE ORDNANCE DISPOSAL (EOD)
WASTE ANALYSIS PLAN
30 SW PLAN 32-7043-C

24 July 1998

OPR: **30 CES/CED**
1172 Iceland Avenue
Vandenberg AFB, CA 93437

OCR: **30 CES/CEVCC**
806 13th Street, Suite 106
Vandenberg AFB, CA 93437

Distribution: A; C; D

30th Space Wing Strategic Plan Support

This document entitled *Explosive Ordnance Disposal (EOD) Waste Analysis Plan (30 SW Plan 32-7043-C)* and published by 30 CES/CEV supports the following 30th Space Wing FY98 Goals and Objectives:

Goals Supported:	**Objectives Supported:**
• **Enhance Successful Operations**	• Ensure Safety and Security • Be a Leader in the National Range Community
• **Improve the Care of Our People**	• Provide Quality Working and Living Conditions
• **Embrace Good Business Practices**	• Comply with Regulations and Treaties • Foster Public Trust • Provide Sound Contract and Resource Management • Operationalize Quality Practices
• **Build Modern, Flexible Infrastructure**	• Determine Best Course for Future Development
• **Achieve Environmental Excellence**	• Aggressively Comply with Environmental Requirements • Exploit Pollution Prevention Opportunities • Increase Team Vandenberg's Involvement in Environmental Programs

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

30 SPACE WING PLAN 32-7043-C (U)
RECORD OF ANNUAL REVIEW

1. **EACH HOLDER OF THIS EXPLOSIVE ORDNANCE DISPOSAL (EOD) WASTE ANALYSIS PLAN (WAP) IS RESPONSIBLE FOR CONDUCTING AN ANNUAL REVIEW AND FORWARDING SUGGESTED CHANGES/ COMMENTS OR NEGATIVE REPLY TO 30 CES/CEV, THE OFFICE OF PRIMARY COORDINATING RESPONSIBILITY. COMPLETE THIS LOG FOR EACH ANNUAL REVIEW.**

Date Annual Review	Conducted By	Date 30 CES/CEVCC Notified

2. **OTHER CIRCUMSTANCES WARRANTING EOD WAP REVIEW AND UPDATE:**

   a. When the EOD WAP fails or proves to be ineffective for attaining goals;

   b. When pertinent federal, state and local laws or regulations change; or when DoD or Air Force policy change; and/or

   c. Upon direction of the Environmental Protection Committee (EPC).

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

30TH SPACE WING PLAN 32-7043-C
RECORD OF CHANGES

AS THIS EOD WAP IS UPDATED OR CHANGED, EACH HOLDER OF THE PLAN WILL IMMEDIATELY POST THE CHANGES AND COMPLETE THE FOLLOWING LOG.

Change No.	Date Posted	Posted By

The first release of this EOD WAP was dated 18 December 1996.

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

30 SPACE WING PLAN 32-7043-C (U)
PLAN SUMMARY

1. PURPOSE. Under the Resource Conservation and Recovery Act (RCRA), permitted and interim status facilities are required to develop and follow a Waste Analysis Plan (WAP) as part of their Part B permit requirements. The WAP must describe the procedures conducted upon receipt of a waste at a facility and ensure that sufficient information is known about each waste stream to properly treat, store, or dispose of the waste. This WAP for the Explosive Ordance Disposal (EOD) range at Vandenberg Air Force Base (AFB) was developed in compliance with federal and state requirements. This plan describes the facility, outlines the responsibilities of all base agencies that either generate propellant, explosive or pyrotechnic (PEP) wastes, or participate in their disposal, and provides the procedures for identifying, accepting and managing those wastes by EOD. An inventory for those PEP wastes disposed of by EOD is presented in Appendix 2.

2. CONDITIONS FOR IMPLEMENTATION.

a. Political-Military Situation. Compliance with this plan for the disposal of PEP wastes is required for all readiness conditions, unless specifically exempted by the 30 SW/CC.

b. Statement. This summary provides a brief overview of the requirements and major aspects of this plan. It is based on the federal, state, and local laws and regulations and Air Force direction available at the time of preparation, and is subject to modification as those requirements change. The information in it will be reviewed annually, or upon notification of changed requirements, and updated accordingly.

c. Legal Considerations. Disposal of PEP wastes by EOD is restricted to those wastes generated by military operations.

d. Environmental Considerations. The purpose of this plan is to ensure compliance with environmental laws and regulations. Nothing in this plan should be construed as contractual direction outside of the scope of the program office authority. If inappropriate direction has been issued, then the contracting officer or the program office must be contacted.

3. OPERATIONS TO BE CONDUCTED. Operations to be conducted consist of the disposal of PEP wastes, in accordance with applicable and referenced laws and regulations, by EOD.

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

This page intentionally left blank.

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

30 SPACE WING PLAN 32-7043-C (U)
TABLE OF CONTENTS

CONTENTS PAGE

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

This page intentionally left blank.

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

30 SW PLAN 32-7043-C (U)
BASIC PLAN

REFERENCES:
a. Air Force Pamphlet, 32-7043, *Hazardous Waste Management Guide*, November 1995.
b. Air Force Policy Directive, 32-70, *Environmental Quality*, 20 July 1994.
c. Code of Federal Regulations, Title 40, Part 264.13.
d. California Code of Regulations, Title 22, Division 4, Section 66264.13.
e. 30 SW, *Hazardous Waste Management Plan (HWMP)*, 24 July 1998.
f. "Part B, RCRA Permit Application," Vandenberg Air Force Base, January 1996.
g. Hazardous Waste Facility Permit (RCRA, Part B Permit), OD/S 95/96-3-001, Vandenberg Air Force Base, 13 June 1996.
h. Military Munitions Rule: Hazardous Waste Identification and Management; Explosive Emergencies; Manifest Exemption for Transport of Hazardous Waste on Right-of-Ways on Continguous Properties; Final Rule, 12 February 1997 (*Federal Register*).

TASKED ORGANIZATIONS: See Annex A for tasked organizations.

1. SITUATION. Execution of this plan will ensure continued operation of the mission through compliance with applicable laws and regulations and Air Force policy for the disposition of propellant, explosive, and pyrotechnic (PEP) wastes by Explosive Ordnance Disposal (EOD).

2. MISSION. The mission of the 30th Space Wing (30 SW) is to conduct and support space and missile launches, operate the Western Range, respond to worldwide contingencies, and host the Vandenberg community. This plan supports that mission by meeting the strategic objective of aggressively complying with environmental requirements.

3. EXECUTION. This plan will be implemented and followed by the applicable units and agencies generating, and disposing of, PEP wastes.

a. Hazardous Waste Management Unit Description. EOD provides open detonation of PEP for Vandenberg Air Force Base (AFB). These materials come from activities associated with research and development, testing, and launching of air and space systems.[1]

[1] Detailed descriptions of Vandenberg AFB and its activities, maps, geological data, and other information are provided in the RCRA Part B permit application.

PEP is defined as:

(1) Propellant: A reactive, energetic material formulated to deflagrate producing instantaneous energy sufficient to propel an object, such as a bullet, projectile, torpedo, rocket, or missile.

(2) Explosive Ordnance: Any chemical compound, mixture, or device whose primary purpose is to function by detonation or deflagration with instantaneous release of heat and gases. The term is not limited to those materials or items to be used directly against an enemy, but includes those utilizing PEP in such applications as illumination, signaling, catapulting personnel or material, mining, cutting, and demolition.

(3) Pyrotechnic: A reactive, energetic material that undergoes reaction to produce audible or visible effects, such as illumination, colored lights, smoke, or noise.

Typically, these PEP materials are hazardous due to their ignitable, reactive, or toxic characteristics. The waste streams received at the EOD Range are identified and addressed in subparagraph d, Facility Procedures and Operational Limitations.

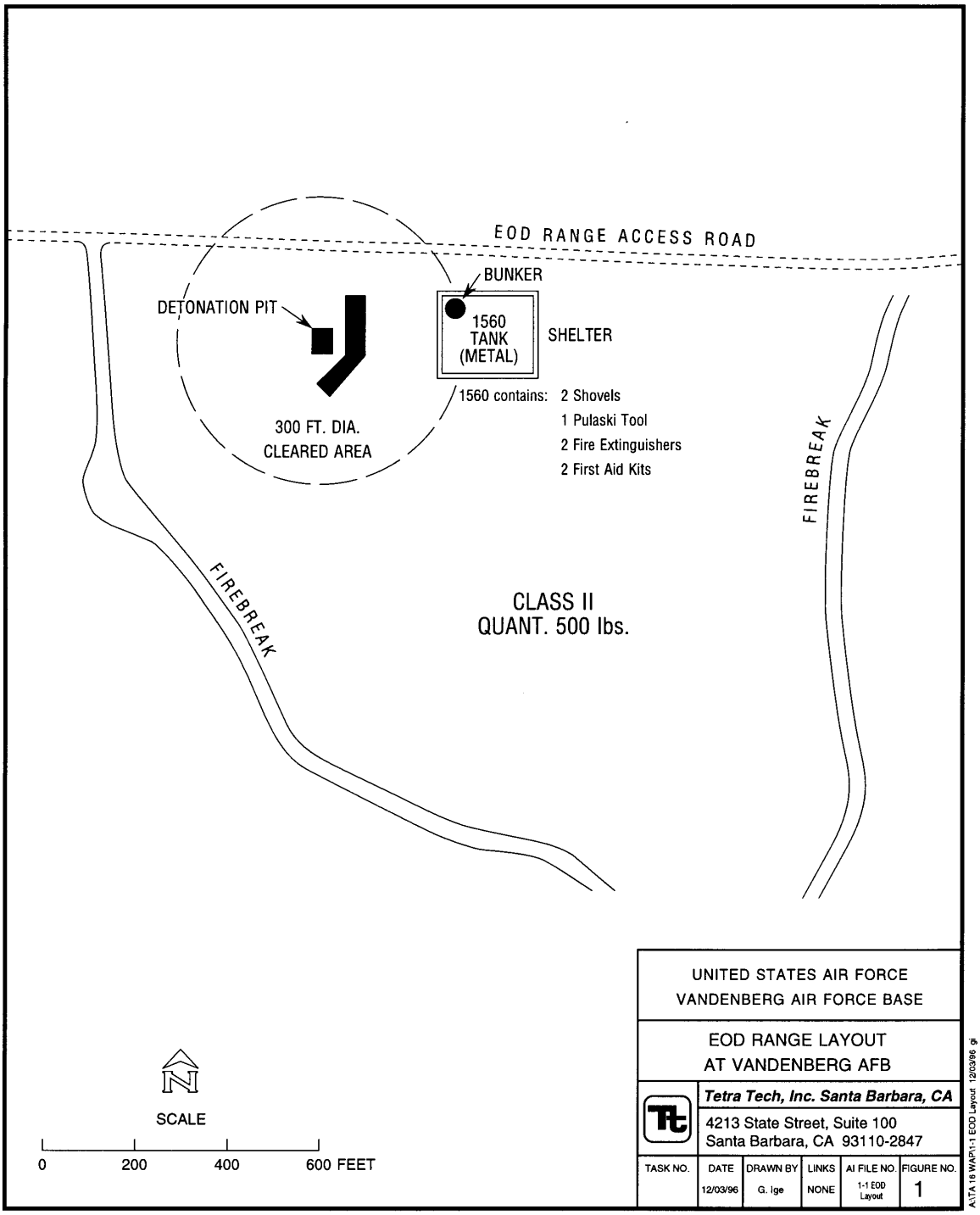
A separate VAFB Profile will be developed for each PEP waste stream if it does not already exist; upon receipt at the EOD Range, each waste is verified against its VAFB Profile. Hazardous wastes other than PEP materials are not accepted at the EOD Range. Grantt authorization is required for all wastes treated at the EOD range. This authorization is issued by the Wing Environmental Services (WES) Contractor once a Hazardous Waste Characterization Form (HWCF) and supporting documentation are provided and a VAFB Profile is developed based on information provided by the generator.

Open detonation at the EOD Range, conducted by trained EOD personnel, is used to destroy unserviceable, unstable, or unusable munitions and explosive materials. Open detonation of PEP is conducted on demand (i.e., the nature and frequency of operations depend on the unpredictable size and type of explosive materials that need disposal) at a dedicated EOD Range in the northern portion of Vandenberg AFB. (The layout of the EOD Range is depicted in Figure 1.) No physical structures or treatment equipment are involved in the detonation operation. The detonation is conducted on a relatively flat cleared area near Building 1560. An earth-reinforced bunker is used for personnel protection during disposal activities.

Over the past few years, range operations (episodes) have averaged roughly one to two per month.

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

Figure 1. EOD Range Layout



b. Criteria Checklist and Waste Analysis Plan Contents. The Waste Analysis Plan (WAP) for the EOD Range complies with federal and state requirements and includes specific requirements for identifying and evaluating PEP wastes at Vandenberg AFB.

c. Identification of Wastes to be Managed. Hazardous waste characterization is the identification, description, and quantification of a hazardous waste stream. Since the proper characterization of hazardous waste helps ensure proper control and timely disposal, each hazardous waste generating activity is responsible for ensuring its wastes are properly characterized in accordance with U.S. Environmental Protection Agency (U.S. EPA) specified methods or by applying generator knowledge of the hazardous characteristics of the waste in light of materials or processes used. The hazardous waste characterization process is detailed in the *Hazardous Waste Management Plan,* 30 SW Plan 32-7043-A.

Once a waste has been designated as hazardous, the process owner/operator is required to prepare and submit to EOD a HWCF for each of the new or changed hazardous waste streams. The process owner/operator is required to provide detailed information regarding the process that generates the waste, a physical and chemical description of the waste, and other documentation of process knowledge. WES contractor personnel review this information to confirm the waste is acceptable for detonation at the EOD Range. If necessary, additional information, such as engineering drawings, will be requested to ensure the generating process is understood and the waste qualifies as PEP. Once the VAFB Profile is developed, a Grantt number is given to the generator. The generator must present the Grantt number and VAFB Profile when offering the waste for treatment at the EOD range. The flow of waste characterization and profiling information is depicted in Figure 2.

Unserviceable, unstable, or unusable PEP materials are generated on Vandenberg AFB during activities related to research and development, testing, and launching of air and space systems. PEP wastes transferred to EOD are listed in Appendix 2, EOD Waste Stream Inventory. The following information is provided:

(1) VAFB Profile number. A unique identification number assigned to each waste stream.

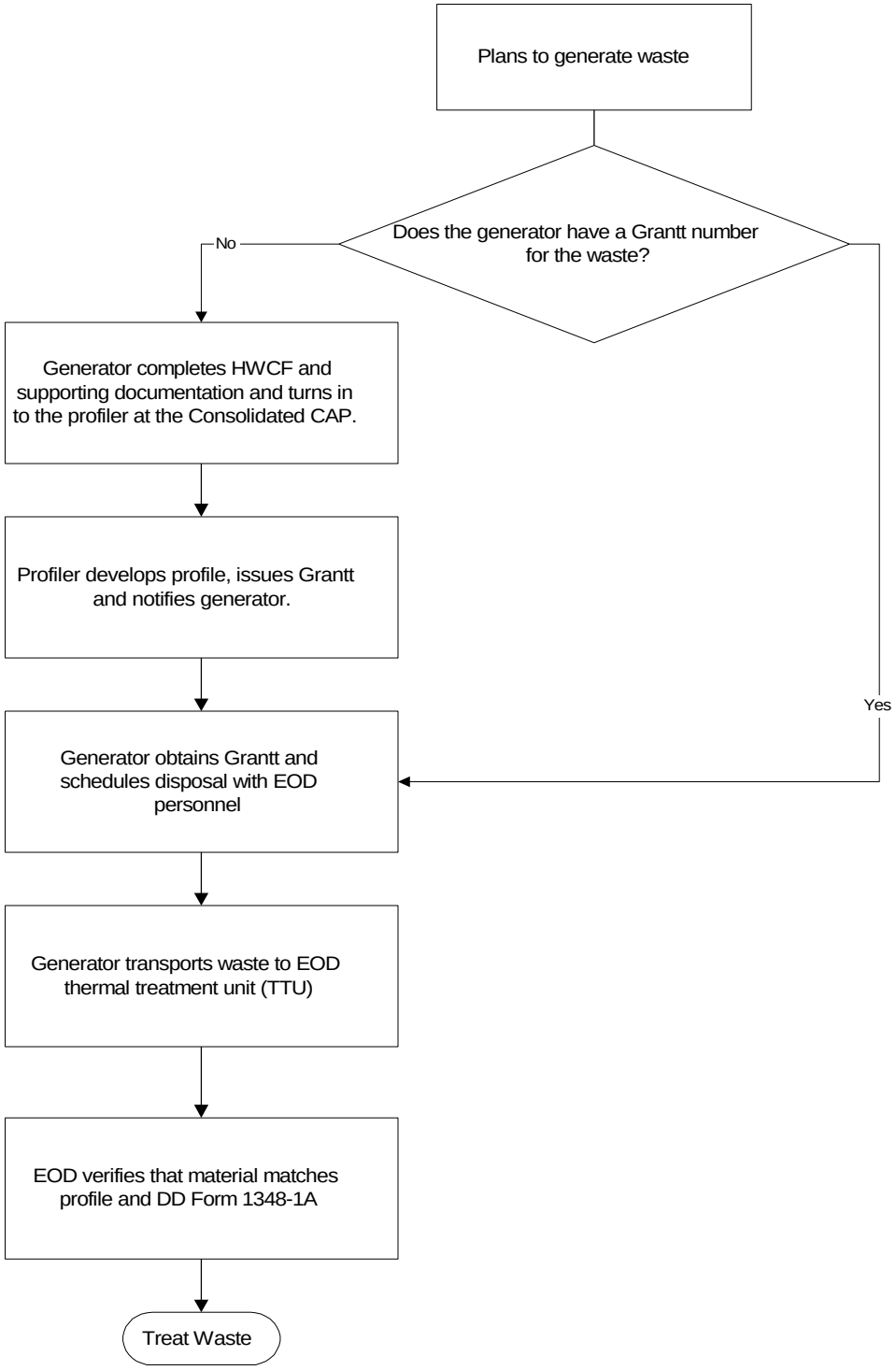
(2) Organization and facility/building number. The name of the process owner/operator and building number of the generating activity.

(3) Name of waste. A name that is generally descriptive of the waste.

(4) U.S. EPA waste codes. The appropriate federal waste codes.

(5) California waste codes. The appropriate state waste codes.

Figure 2. Waste Characterization and Profiling Flowchart



(6) Process generating waste. A brief description of the process/operation generating the waste.

(7) Hazardous properties of waste. Corrosive, ignitable, reactive, or toxic.

(8) Estimated annual quantity. Projected quantity of waste generated annually.

Wastes received at the EOD Range typically exhibit the characteristic of ignitability, reactivity, or toxicity. The basis for hazard classification for each of the EOD-destined wastes is derived from generator knowledge of the process and materials used. Process knowledge is based on information in the process owner/operator's description and on screening the Material Safety Data Sheets (MSDSs) or other material information prior to accepting the waste at the facility. Since PEP waste is explosive, it is not tested or subjected to chemical analysis.

d. Facility Procedures and Operational Limitations.

(1) Procedures for Receiving Wastes. All hazardous wastes received at the EOD Range will have a VAFB Profile. The VAFB Profile provides a comprehensive description of each waste stream. The VAFB Profiles for the waste streams listed in Appendix 2 are filed at 30 CES/CED and by the WES Contractor at the Collection Accumulation Point, Building 6830. EOD personnel visually inspect and compare each waste received to the appropriate VAFB Profile to identify the waste. When the waste is received from a military unit, it can often be verified against a stock number. In other cases, the waste is verified by applying process knowledge (e.g., material specifications, engineering drawings) and/or by EOD personnel experience and training. Hazardous wastes that are not PEP are not accepted at the facility.

(2) Procedures for Managing and Handling Wastes. The EOD Range is inspected prior to and after each operation. Whenever PEP wastes are detonated, explosive charges are brought to the EOD Range by EOD personnel. Each batch of PEP to be detonated is carefully prepared in accordance with Department of Defense (DoD) ordnance disposal technical orders by thoroughly trained EOD specialists. All EOD operations are conducted by a minimum of two experienced personnel. PEP materials scheduled for open detonation are carefully placed on the ground in the designated waste detonation area. Supplementary explosives are added and detonation is conducted from a remote location.

EOD personnel conduct a visual inspection of the detonation site to verify that no observable residue remains after each EOD Range operation. The objective is the complete destruction of the item being detonated. EOD personnel are trained to use sufficient quantities of the disposal charge to ensure the objective is achieved. In the event

of a malfunction or incomplete destruction, EOD personnel will conduct additional detonation operations until complete destruction has occurred. The crater at the detonation point will be filled by grading, as necessary.

(3) Design Capacities and Limitations. The following maximum allowable explosive quantities have been established for the EOD Range:

Maximum Quantity per Episode:	250 lbs (cased explosives) 500 lbs (uncased explosives)
Maximum Quantity per Day:	500 lbs
Maximum Quantity per Month:	1,000 lbs
Maximum Quantity per Year:	8,000 lbs

These allowable maximum quantities will provide the operational flexibility to meet the variable nature of the demand for EOD Range usage. (This does not include C-4 or any treatment devices.)

e. Waste Sampling, Analysis, and Quality Assurance/Quality Control Procedures. Because of the health and safety risks to personnel, sampling and analysis of PEP waste is not conducted; therefore, the usual Quality Assurance/Quality Control procedures for sampling do not apply. The physical nature of many of the PEP materials does not readily support taking a laboratory sample (e.g., metal casings). Identification by using process knowledge will be the primary method of identifying the composition of the PEP material. Most PEP materials have been manufactured to exacting standards. Existing process records, manufacturing specifications, product publications, and EOD technical orders will supply sufficient information to determine the suitability of the waste stream for detonation.

For wastes received from military units, the applicable Air Force technical orders provide published data for each specific munition. For wastes received from non-military organizations (excluding commercial space operations), the process owner/operator is required to supply EOD with sufficient information to verify the integrity of the data provided. This may be accomplished by the process owner/operator providing process and material data, specifications, and/or engineering drawings.

f. Ignitable, Reactive, and Incompatible Wastes. Most hazardous wastes received at the EOD range exhibit one or both of the characteristics of ignitability or reactivity. PEP wastes are always detonated immediately, and are never stored at the facility.

g. Waste Analysis Requirements Pertaining to Land Disposal Restrictions. Open detonation of explosives is regarded as a form of treatment rather than land disposal. Most wastes handled at EOD are hazardous because they exhibit the characteristic of reactivity (i.e., they are explosive) and they are rendered nonreactive when they are detonated. Therefore, the

land disposal restrictions program is not applicable to open detonation (51 FR 40580 [7 November 1986] and 52 FR 21011 [4 June 1987]).

h. Frequency for Waste Stream Re-evaluation. The waste streams will be re-evaluated annually or when:

(1) Processes are changed, or other factors affecting waste identification have occurred.

(2) Permits are modified or reissued.

(3) Regulations affecting the definition of hazardous waste are promulgated.

(4) Regulations are promulgated affecting management of existing wastes at the facility.

i. Methods for Waste Stream Re-evaluation. PEP waste characterization and re-evaluation are based on existing DoD EOD technical orders. These methods will govern any re-evaluations until superseded by U.S. EPA procedures.

j. Procedures for Handling Suspected Changes in a Waste. If a change in waste is suspected, the waste will not be accepted until the discrepancy or cause for suspicion has been explained and resolved. If a change is found, a new VAFB Profile will be generated.

k. Methods to Ensure that the Waste Analysis Plan is Kept up to Date. VAFB Profiles will be updated whenever a new PEP waste stream is generated and/or when an approved PEP waste stream changes. This plan will be updated annually to ensure currency. All changes to this plan will strictly adhere to 30 SW/XP requirements.

4. ADMINISTRATION AND LOGISTICS. The resources required and available to support the implementation and continuation of this plan are as stated in Annex J.

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

5. COMMAND AND SIGNAL. Not applicable.

ROOSEVELT MERCER, JR.
Colonel, USAF
Commander

STEVEN C. BOYCE, Col, USAF
Commander, Civil Engineering Squadron

1 Attachment:
Acronyms

2 Appendices:
1. Criteria Checklist
2. EOD Waste Stream Inventory

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

This page intentionally left blank.

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

ATTACHMENT 1 TO THE BASIC 30 SPACE WING PLAN 32-7043-C (U)
ACRONYMS

Abbreviation, Definition or Acronym

ADR	Ammunition Disposition Report
AFB	Air Force Base
AFPD	Air Force Policy Directive
CCR	California Code of Regulations
CFR	Code of Federal Regulations
DoD	Department of Defense
DRMO	Defense Reutilization and Marketing Office
DTSC	California Department of Toxic Substances Control
EOD	Explosive Ordnance Disposal
EPC	Environmental Protection Committee
HWCF	Hazardous Waste Characterization Form
HWMP	Hazardous Waste Management Plan
HWMU	Hazardous Waste Management Unit
HWPS	Hazardous Waste Profile Sheet
MSDS	Material Safety Data Sheet
OCR	Office of Coordinating Responsibility
OPR	Office of Primary Responsibility
PEP	Propellants, Explosives, and Pyrotechnics
RCRA	Resource Conservation and Recovery Act
TSDF	Treatment, Storage or Disposal Facility
TTU	thermal treatment unit
U.S. EPA	U.S. Environmental Protection Agency
VAFB	Vandenberg Air Force Base
WAP	Waste Analysis Plan
WES	Wing Environmental Services
WSI	Waste Stream Inventory
30 SW	30th Space Wing

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

This page intentionally left blank.

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

APPENDIX 1 TO THE BASIC 30 SPACE WING PLAN 32-7043-C (U)
CRITERIA CHECKLIST

REQUIREMENTS	***EOD APPLICABILITY (Basic Plan Location)***
Identify for each hazardous waste handled:	
1. U.S. EPA Hazardous Waste number and basis for RCRA hazard designation	Sec 3c; Append 2
2. California Waste Code	Sec 3c; Append 2
3. Waste name with restricted wastes identified	Sec 3c; Append 2
4. For land disposal facilities receiving restricted wastes:	N/A
a. RCRA wastes – copies of extension approval notices from U.S. EPA and Cal EPA	N/A
b. Non-RCRA wastes – copies of variance approval notices	N/A
5. Hazardous Properties of Waste	Sec 3c; Append 2
a. Physical and chemical properties	Sec 3c; Append 2
b. Ignitability	Sec 3c; Append 2
c. Corrosivity	Sec 3c; Append 2
d. Reactivity	Sec 3c; Append 2
e. Incompatibility	Sec 3c; Append 2
f. Known health and environmental effects	Sec 3a; 3e
6. Estimated monthly and annual quantities produced and units of measure	Sec 3c; Append 2
7. Process(es) that produced the waste	Sec 3c; Append 2
8. Process(es) used for handling waste	Sec 3d; 3a
9. Design capacities and waste handling processes for, and identification of hazardous wastes to be handled in, each of the following types of units:	
a. Containerized waste	N/A

REQUIREMENTS	***EOD APPLICABILITY (Basic Plan Location)***
b. Waste in tank systems	N/A
c. Waste in piles	N/A
d. Landfilled wastes	N/A
e. Wastes incinerated and wastes used in performance tests	N/A
f. Wastes to be land treated	N/A
g. Wastes in surface impoundments	N/A
h. Wastes in drip pads	N/A
i. Wastes in miscellaneous treatment units	Sec 3e
10. Results of chemical and physical analyses of the waste	Sec 3e
11. Documented waste data from a source other than operator's waste analysis	Sec 3c; 3e
B. Waste Analysis Parameters	Sec 3c; 3e
1. The parameters for which the waste will be analyzed	Sec 3e
2. Rationale for choosing those parameters	Sec 3e
C. Waste Sampling and Sample Management	Sec 3e
1. The sampling procedures to be used to obtain a representative sample of the waste	N/A
2. Protective gear required	N/A
3. Sampling method number and reference	N/A
4. Sampling device	N/A
5. Description of any method not approved by U.S. EPA	N/A
6. Storage instruction	N/A
7. Statistically representative sampling technique (simple, stratified, or systematic random sampling; composite or grab sampling; subsampling)	N/A
8. Practicality of statistically representative sampling (physical barriers, alternative methods) addressed	N/A
9. Number of sampling sites	N/A

REQUIREMENTS	***EOD APPLICABILITY (Basic Plan Location)***
10. Waste containment devices when sampling	N/A
11. Physical state(s)/layers of waste	N/A
12. Precision and accuracy of sampling procedures	N/A
13. Rationale for sampling strategy selected	N/A
14. For samples taken by non-facility people, certification/documentation of representative sampling procedures	N/A
D. Waste Analysis Procedures	Sec 3e
1. Test methods to be used	N/A
2. SW-846 method and rationale for choice	N/A
3. Detailed description and reference for any method not U.S. EPA-approved	N/A
4. Detection limits of analytical method	N/A
E. Conditions Requiring and Frequency of Repeated Sampling and Analysis	
1. The frequency with which the waste analysis will be repeated or reviewed for accuracy and timeliness	N/A
2. Methods and frequency of retesting for recharacterization of wastes:	Sec 3i
a. Potential for wastes restricted from the facility being included by mistake	Sec 3j
b. Process design limitations	N/A
c. Variability of waste composition	N/A
d. Chemical/physical instability of the waste	N/A
e. Prior history of the generator's performance and reliability	N/A
f. Procedures if a recharacterization proves the waste is unacceptable to the facility	Sec 3h
3. Procedures if change in waste is suspected:	Sec 3j
a. To obtain information	Sec 3j
b. Sampling and analysis	N/A
c. Criteria to evaluate waste change information	Sec 3j
d. For handling wastes proven unacceptable by the facility	Sec 3j

REQUIREMENTS	***EOD APPLICABILITY (Basic Plan Location)***
F. Additional Requirements for Off-Site Facilities	N/A
Off-site facilities must also identify in the plan:	N/A
1. The waste analyses that hazardous waste generators have agreed to supply	N/A
2. The procedures to be used to inspect and analyze (if necessary) each load of hazardous waste received to ensure that it matches the waste identified on the manifest	N/A
3. Shipment screening procedures:	N/A
a. Manifest review	N/A
b. Visual inspection	N/A
c. Frequency and percent of shipment inspected, sampled, and/or analyzed annually	N/A
d. Procedures for shipments which are unacceptable by the facility	N/A
e. Key parameters for shipment analysis of each waste or waste type	N/A
G. QA/QC Procedures	Sec 3e
1. Goals of QA/QC	N/A
2. Intended use of and quantity of data to be gathered	N/A
3. Acknowledgment that QA/QC procedures will be followed as described in specific test methods in SW-846	N/A
4. Performance evaluation of trained sampling and analysis personnel	N/A
5. Frequency of personnel evaluations and rationale	N/A
6. Documentation of evaluations	N/A
7. Chain of custody procedures:	N/A
a. Labeling and seals	N/A
b. Field logbook	N/A
c. Receipt and logging of samples by lab personnel	N/A
d. Chain of custody records	N/A
e. Sample analysis request sheet	N/A

REQUIREMENTS	***EOD APPLICABILITY (Basic Plan Location)***
f. Method of containment and preservation	N/A
g. Confirmation sheet of sample delivery	N/A
8. Laboratory aspects of chain of custody:	N/A
a. Documentation	N/A
b. Numbering and documenting path of samples through laboratory	N/A
c. Destiny of remaining sample after analysis	N/A
d. Documentation and forwarding of test results to manager for filing	N/A
9. Documentation that lab equipment is inspected, maintained and serviced periodically	N/A
10. The frequency with which the waste analysis will be repeated or reviewed for accuracy and timeliness	N/A
11. Wastes analyzed outside the facility	N/A
a. Documentation of analytical procedures and representative sampling	N/A
b. Certification of outside lab to perform this test method	N/A
12. For all facilities, describe methods to ensure that the waste analysis plan will be kept up to date	N/A
H. Waste Analysis Requirements Pertaining to Land Disposal Restrictions	Sec 3g
1. Waste characterization	N/A
a. Solvent wastes and dioxin containing wastes	N/A
b. California list wastes	N/A
c. First third wastes with treatment standards	N/A
d. Second third wastes with treatment standards	N/A
e. Third third wastes with treatment standards	N/A
2. Notification and certification requirements	N/A
a. Retention of generator notices and certifications	N/A
b. Notification and certification for wastes to be further managed	N/A
c. Additional notification and certification requirements for treatment facilities	N/A

REQUIREMENTS	*EOD APPLICABILITY (Basic Plan Location)*
d. Additional notification and certification requirements for disposal facilities	N/A
e. Notification and certification requirements pertaining to landfill and surface impoundment disposal restrictions	N/A
3. Additional requirements pertaining to the storage of restricted wastes	N/A
4. Additional requirements for treatment facilities	N/A
5. Additional requirements for land disposal facilities	N/A
I. Waste Analysis Requirements for Wastes to be Incinerated During Operation and Performance Tests	N/A
1. Major hazardous and non hazardous waste constituents	N/A
2. Heat of combustion	N/A
3. Viscosity	N/A
4. Solids loading	N/A
5. Physical form of nonliquid wastes	N/A
6. HCl concentrations	N/A
7. Ash content	N/A
8. Characteristics of hazardous waste fuel as incinerated	N/A
9. Sampling, analysis and quality assurance in characterizing waste fuel	N/A
10. Blending of waste fuels	N/A
11. Homogeneity of waste fuels	N/A
J. Ignitable, Reactive and Incompatible Wastes	Sec 3f
1. The methods to be used for ensuring compatibility of wastes with handling methods	Sec 3f
2. Waste compatibility with containers	N/A
a. Procedures for determining compatibility of a waste to a container	N/A
b. Procedures for analyzing liquids that are collected in a storage area	N/A
c. Procedures for analyzing ignitable or reactive containerized wastes	N/A
d. Procedures for determining compatibility of wastes to be placed in same container	N/A

REQUIREMENTS	***EOD APPLICABILITY (Basic Plan Location)***
e. Procedures for determining compatibility of a waste to wastes previously held in reused containers that were not decontaminated	N/A
f. Procedures for determining compatibility of a waste to other wastes stored nearby in containers, piles, open tanks, or surface impoundments	N/A
3. Waste compatibility with tanks	N/A
a. Procedures for analyzing liquids collected in the collection area	N/A
b. Procedures for determining compatibility of a waste to a tank	N/A
c. Procedures for analyzing ignitable or reactive wastes managed in tanks	N/A
d. Procedures for determining compatibility of a waste to any raw materials or other wastes potentially or previously held in the tank	N/A

This page intentionally left blank.

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

APPENDIX 2 TO THE BASIC 30 SPACE WING PLAN 32-7043-C (U)
EOD WASTE STREAM INVENTORY

VAFB Profile No.	Organization/Building No.	Name of Waste	EPA Waste Code(s)	CA Waste Code	Process Generating Waste	Hazardous Properties	Estimated Annual Weight (lbs)
7002-01	Chemical Services Division Bldg. 945	Propellant, solid rocket, PBAN/AP	D003	352	Trimming of solid rocket propellant	Reactive, Toxic	<1
7003-01	Martin Marietta Bldg. 398	Detonation Cord	D003, D008	352	Damaged equipment during maintenance	Reactive, Toxic	20
7004-01	Martin Marietta Bldg. 398	Propellant, CTPB	D003	352	Removal of suspect material during maintenance	Reactive, Toxic	20
7018-01	AFMC Det 41 Bldg. 1900	FTOS Ordnance Transmission Assembly	D003	181	Removal of expended ordnance	Reactive	5
7019-01	AFMC Det 41 Bldg. 1900	Propellant, unburned	D003	181	Collection of propellant residue	Reactive	5
7020-01	McDonnell Douglas Bldg. 1620E	Pyrophoric igniters (triethylborane)	D003	181	Expired Shelf Life/ Off-Spec Product	Reactive	5
7021-01	McDonnell Douglas Bldg. 1620E	Detonating Fuse w/lead	D003, D008	181	Expired Shelf Life/ Off-Spec Product	Reactive, Toxic	1
7022-01	McDonnell Douglas Bldg. 1620E	Detonating Fuse w/o lead	D003	181	Expired Shelf Life/ Off-Spec Product	Reactive	1

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

VAFB Profile No.	Organization/Building No.	Name of Waste	EPA Waste Code(s)	CA Waste Code	Process Generating Waste	Hazardous Properties	Estimated Annual Weight (lbs)
7023-01	McDonnell Douglas Bldg. 1620E	Initiator assembly, electroexplosive	D003, D005, D008	141	Expired Shelf Life/ Off-Spec Product	Reactive, Toxic	1
7024-01	576th FLTS Bldg. 1546	Bullets, miscellaneous	D005, D008	181	Expired Shelf Life/ Off-Spec Product	Toxic	10
7025-01	McDonnell Douglas Bldg. 1620E	Assembly, charge, linear shaped	D003	181	Expired Shelf Life/ Off-Spec Product	Reactive, Toxic	1
7026-01	McDonnell Douglas Bldg. 1620E	Detonator	D003, D008	181	Expired Shelf Life/ Off-Spec Product	Reactive, Toxic	1
7027-01	NASA Bldg 839	Explosive Bolts (Hi-Shear Initiator)	D003	181	Expired Shelf Life/ Off-Spec Product	Reactive, Toxic	1
7028-01	Martin Marietta Bldg. 398	Explosive, gas pressure cartridge	D003, D005, D007	331	Expired Shelf Life/ Off-Spec Product	Reactive, Toxic	1
7029-01	McDonnell Douglas Bldg. 1620E	Pressure cartridge assembly	D003	331	Expired Shelf Life/ Off-Spec Product	Reactive, Toxic	1
7030-01	McDonnell Douglas Bldg. 1620E	Explosive transfer assembly	D003, D008	331	Expired Shelf Life/ Off-Spec Product	Reactive, Toxic	1
7031-01	General Dynamics Bldg. SLC-6	Detonating cord, damaged	D003	331	Expired Shelf Life/ Off-Spec Product	Reactive	1

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

ANNEX A TO 30 SPACE WING PLAN 32-7043-C (U)
TASKED ORGANIZATION

ORGANIZATION	COMMANDER
30th Space Wing	30 SW/CC
30th Logistics Group	30 LG/CC
30th Contracting Squadron	30 CONS/CC
30th Support Group	30 SPTG/CC
30th Civil Engineering Squadron	30 CES/CC
30th Medical Group	30 MDG/CC
30th Aerospace Medicine Squadron	30 AMDS/CC

ROOSEVELT MERCER, JR.
Colonel, USAF
Commander

OFFICIAL:

STEVEN C. BOYCE, Col, USAF
Commander, Civil Engineering Squadron

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

This page intentionally left blank.

`

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

ANNEX C TO 30 SPACE WING PLAN 32-7043-C (U)
OPERATIONS

REFERENCES: a. Air Force Policy Directive, 32-70, *Environmental Quality*, 20 July 1994.
b. Air Force Pamphlet, 32-7043, *Hazardous Waste Management Guide*, November 1995.
c. Code of Federal Regulations, Title 40, Part 264.13.
d. California Code of Regulations, Title 22, Division 4, Section 66264.13.
e. Hazardous Waste Facility Permit (RCRA, Part B Permit), OD/S 95/96-3-001, Vandenberg Air Force Base, 13 June 1996.

1. SITUATION.

a. Purpose. This plan ensures proper characterization of PEP wastes and their disposal at the EOD Hazardous Waste Management Unit (HWMU).

b. Assumptions. Disposal of PEP wastes will be in accordance with the RCRA Part B Permit.

c. Area of Operation. The area of operation for this plan is North Vandenberg AFB and South Vandenberg AFB.

2. MISSION. To achieve environmental excellence through aggressive compliance and innovation.

3. EXECUTION. Refer to the Basic Plan for a concept of operations.

4. ADMINISTRATION AND LOGISTICS. Refer to Annex J and the Basic Plan to determine resources required to execute this plan.

`

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

5. COMMAND AND SIGNAL. Not applicable.

ROOSEVELT MERCER, JR.
Colonel, USAF
Commander

OFFICIAL:

STEVEN C. BOYCE, Col, USAF
Commander, Civil Engineering Squadron

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

ANNEX J TO 30 SPACE WING PLAN 32-7043-C (U)
COMMAND RELATIONSHIPS

REFERENCES: a. AFPAM 32-7043, *Hazardous Waste Management Guide*, November 1995.
b. 30 SW Plan 32-7043-A, *Hazardous Waste Management Plan (HWMP)*, 24 July 1998.

1. GENERAL.

a. Purpose. This annex provides organizational relationships supporting the characterization and disposal of PEP wastes on Vandenberg AFB.

b. Mission. To achieve environmental excellence through aggressive compliance and innovation.

2. COMMAND LINES. Appendix 1 to Annex J provides the command relationship diagram, which depicts the command lines for this plan.

3. SUPPORT, PLANNING AND COORDINATION RELATIONSHIPS. This annex describes the responsibilities of base agencies and PEP waste generators. EOD has responsibility for operating the HWMU; however, there are many organizations that have collateral responsibilities for ensuring the proper turn-in of wastes and for supporting EOD in managing the HWMU. Implementation and effective operation of a waste analysis program require maximum cooperation from all these organizations. Specific responsibilities for tasked organizations are described below.

a. Installation Commander (30 SW/CC).

(1) Has ultimate responsibility for compliance with federal, state, and local laws and regulations requiring this WAP.

(2) Ensures appropriate Command attention and support.

(3) Chairs the Environmental Protection Committee (EPC).

b. Environmental Protection Committee.

(1) Reviews and coordinates EOD WAP requirements, and ensures implementation through plans, policy letters, or other means, as appropriate.

(2) Reviews the status of the EOD WAP annually to ensure changes are submitted as needed to keep the plan up to date.

c. 30 Support Group (30 SPTG/CC). The Support Group Commander ensures applicable assigned organizations implement and support this plan.

d. 30 Civil Engineering Squadron (30 CES/CC).

(1) Assigns, equips, and trains sufficient Civil Engineering resources to support the implementation of this WAP.

(2) Manages and operates the EOD Range through 30 CES/CED.

e. Explosive Ordnance Disposal (30 CES/CED).

(1) Operates the conventional ordnance disposal HWMU at Vandenberg AFB.

(2) Serves as the office of primary responsibility (OPR) for this WAP.

(3) Verifies the hazardous waste received is waste PEP and that a VAFB Profile exists for each PEP waste stream received by checking the Grantt authorization number.

(4) Assists process owners/operators with determining and identifying PEP to be disposed of as hazardous waste at the EOD Range.

(5) Reviews each PEP VAFB Profile annually to validate currency. Notifies the Wing Environmental Services (WES) Contractor and 30 CES/CEVCC on the adequacy, or inadequacy, of the continued use of a specific VAFB Profile.

(6) Maintains a file containing as a minimum: copies of each VAFB Profile and DD Forms 1348-1a or Ammunition Disposition Request (ADR), or suitable substitute of the DD Form 1348-1a or ADR.

(7) Incorporates changes to this plan at least annually to ensure that the most up-to-date characterization procedures are conducted and the plan is correct and current. Submits plan revisions to the EPC for review and approval.

f. Environmental Management Flight, Compliance Section (30 CES/CEVCC).

(1) Serves as the office of coordinating responsibility (OCR) for this plan.

(2) Ensures the PEP waste management process is in compliance with all federal, state, and local requirements.

(3) Assigns, equips, and trains sufficient resources to support this plan.

(4) Provides technical support with regard to PEP waste disposal and recordkeeping.

(5) Directs the WES Contractor in profiling PEP waste and updating this plan.

g. 30th Medical Group Commander (30 MDG/CC). The Medical Group Commander ensures applicable assigned organizations implement and support this plan.

h. 30th Aerospace Medicine Squadron Commander (30 AMDS/CC). The Aerospace Medicine Squadron Commander assigns, equips, and trains sufficient resources to support the implementation of this WAP through Bioenvironmental Engineering Services.

i. Bioenvironmental Engineering Services (30 AMDS/SGPB).

(1) Assists tasked organizations, as needed, with PEP waste characterization based on user knowledge, process information, documentation such as Material Safety Data Sheets (MSDSs), and/or chemical analysis.

(2) Provides advice for completing the health-related sections of the PEP VAFB Profile.

(3) Coordinates changes to VAFB Profile format with 30 CES/CEVCC.

j. Logistics Group (30 LG/CC). The Logistics Group Commander assigns, equips, and trains sufficient resources to support the implementation of this WAP through the various squadrons and branches within the Logistics Group.

k. 30 Contracting Squadron (30 CONS/CC). The Contracting Commander ensures applicable assigned organizations implement and support this plan.

l. Wing Environmental Services (WES) Contractor.

(1) Supports and maintains this WAP as stipulated in the Contractor's Statement of Work.

(2) Coordinates with other task organizations to incorporate and publish changes to this plan.

(3) Assists EOD and process owners/operators with completing VAFB Profiles for PEP waste streams and authorizing turn-in by providing generators with a Grantt authorization number.

(4) Approves VAFB Profiles for each process owner/operator.

(5) Reviews PEP VAFB Profile information submitted by the process owner/operator to properly characterize the waste, or to identify requirements necessary for proper characterization of the waste.

(6) Maintains copies of the PEP VAFB Profile and other associated turn-in documents.

m. PEP Waste Process Owners/Operators.

(1) Ensure that properly equipped, trained, and motivated personnel are assigned to characterize and manage PEP wastes for their unit/contract.

(2) Ensure all PEP wastes are properly characterized when newly generated or when waste streams have changed.

(3) Provide comprehensive descriptions of all PEP hazardous waste streams generated by their units or contractors under their control. Provide EOD and WES contractor with MSDSs, manufacturer data, and process description to document user knowledge or help determine other requirements.

(4) Quantify PEP waste amounts for all potential hazardous waste streams.

(5) Review each PEP VAFB Profile to ensure the waste stream and process, or processes, that generated the waste stream are accurately described.

(6) Maintain copies of the PEP VAFB Profile and other associated turn-in documents.

(7) Prepare operating instructions/procedures, as necessary, to effectively implement this WAP.

n. Judge Advocate Office (30 SW/JA/JAV). Provides legal opinions and guidance on federal, state, local, and Air Force rules and regulations as applicable to this plan.

p. Base Contracting Officer (30 CONS/LGC). Assists with the implementation of this plan by providing management and direction to the various contractors operating on Vandenberg AFB. This plan is not to be construed as a contract directive, unless a contract incorporates it by reference as a directive. Contracting officers will ensure that the EOD WAP is implemented through appropriate contractual documents.

p. Judge Advocate Office (30 SW/JA). The Judge Advocate Office provides legal opinions and guidance on federal, state, and local regulations, and Air Force directives as applicable to this plan.

q. Base Plans (30 SW/XP). The Base Plans Office provides a copy of the WAP to those host-tenant agreement organizations generating PEP that will be sent to the EOD Range.

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

4. PLANNING RELATIONSHIPS. Not applicable.

ROOSEVELT MERCER, JR.
Colonel, USAF
Commander

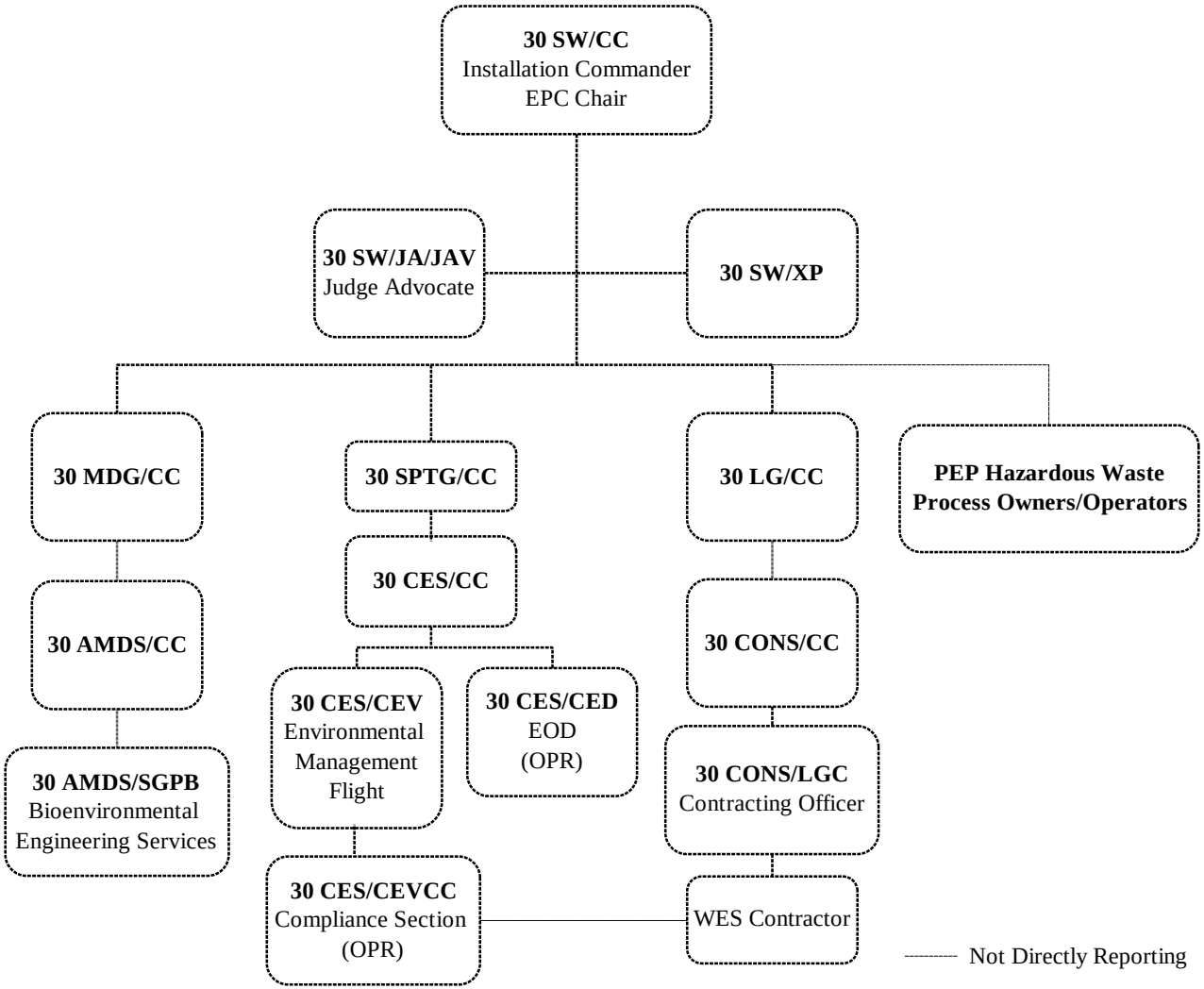
OFFICIAL:

STEVEN C. BOYCE, Col, USAF
Commander, Civil Engineering Squadron

Appendix 1:
Command Relationships Diagram

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

APPENDIX 1 TO ANNEX J TO 30 SPACE WING PLAN 32-7043-C (U)
COMMAND RELATIONSHIPS DIAGRAM



HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

ANNEX Z TO 30 SPACE WING PLAN 32-7043-C (U)
DISTRIBUTION

DISTRIBUTION	NO. COPIES
HQ AFSPC/CEV	1
30 SW/CC	1
30 SW/XPO	1
30 AMDS/SGPB	1
30 CES/CEV	1
30 CES/CEVCC	2
30 CES/CED	1
30 CONS/LGC	1
WES Contractor	1

Distribution A; C; D

ROOSEVELT MERCER, JR.
Colonel, USAF
Commander

OFFICIAL:

STEVEN C. BOYCE, Col, USAF
Commander, Civil Engineering Squadron

HEADQUARTERS THIRTIETH SPACE WING
Vandenberg Air Force Base, California 93437-5000
24 July 1998

This page intentionally left blank.